

INTERNATIONAL SEARCH REPORT

International application No.
PCT/AU2004/000998

A. CLASSIFICATION OF SUBJECT MATTER Int. Cl. ⁷ : E21B 4/14, E21B 10/60, E21B 21/00 According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) DWPI: IPC E21B 4/14, 10/60, 10/38, 21/00 and keywords (passage, groove, spline, air) and like terms		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 1994/024405 A1 (SANDVIK AB) 27 October 1994 Figure 1, page 7, lines 12-25	8-10
A	WO 1990/015220 A1 (LISTER) 13 December 1990 Figures 3 and 4, page 3, lines 19-23	1-15
A	WO 2001/021930 A1 (AZUKO PTY LTD) 29 March 2001 Whole document	1-15
A	AU 200154362 A1 (AZUKO PTY LTD) 17 January 2002 Whole document	1-15
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C <input checked="" type="checkbox"/> See patent family annex		
* Special categories of cited documents: "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent but published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family	
Date of the actual completion of the international search 13 August 2004		Date of mailing of the international search report 18 AUG 2004
Name and mailing address of the ISA/AU AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustalia.gov.au Facsimile No. (02) 6285 3929		Authorized officer S. GHOSH Telephone No : (02) 6283 2163

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 1988/003220 A1 (LISTER) 5 May 1988 Whole document	1-15
A	WO 2003/042492 A1 (SDS DIGGER TOOLS PTY LTD) 22 May 2003 Whole document	1-15
A	WO 1991/016521 A1 (GIEHL) 31 October 1991 Whole document	1-15
A	GB 2,243,387 A (D.T.A. PTY LTD) 30 October 1991 Whole document	1-15

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Patent Document Cited in Search Report				Patent Family Member			
WO	9424405	AU	65149/94	CA	2160151	EP	0692062
		FI	954784	US	5407021		
WO	9015220	AU	57368/90	ZA	9004380		
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		US	6702045	ZA	200203029		
AU	5436201	AU	54362/01				
WO	8803220	AU	81767/87	EP	0327575	GB	2215757
		US	4911250	ZA	8708007		
WO	03042492	CA	2466939				
WO	9116521	AU	77559/91				
GB	2243387	AU	75247/91	AU	75386/91	CA	2041000
		US	5154244				

Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.

END OF ANNEX